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ORIGINAL DEPARTMENT.

Communications.

ANATOMY

IN ITS RELATIONS TO

MEDICINE AND SURGERY.

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No. 28.

INTRA-ORBITAL REGION—(*continued*).—If an incision be carried with caution through the sclerotic, a few lines behind the cornea, the nozzle of a blow pipe inserted beneath and a little air forced in, it will be sufficiently separated from the choroid beneath, to admit the blunt pointed blade of a pair of scissors between, and while the organ is steadied by a pair of forceps grasping one side of the incised membrane, by successive snips, it may be divided around the entire circumference. Each half should next be slit up at right angles with the first incision, and being seized with forceps may be torn from the choroid, touching such points as adhere too firm, with the edge of a scalpel. This dissection should be conducted in, or under water. This accomplished, the second, or choroid coat of the eye will be exposed, presenting a very dark brown appearance, and upon it many straight vessels and nerves "*ciliary*," also some delicate connective tissue. One vessel, the long ciliary artery is situated a little below the middle of the eye, and extends forward to the ciliary ligament, dividing them into two branches, which run along the upper and lower semi-circumference of the ligament, to inosculate with corresponding trunks of the other artery.

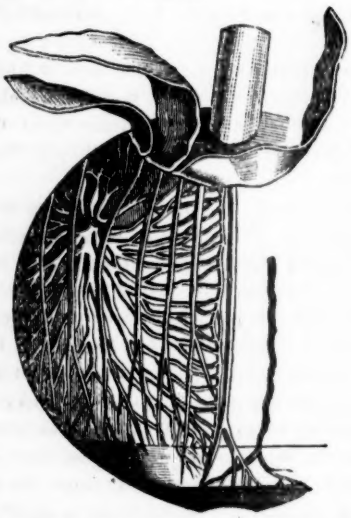
The choroid is a vasculo-pigmentary membrane, perforated behind by the optic nerve, and in front connected with the iris. The vascular elements consist of membraniform expansions of arteries and veins. The stratum in which the veins predominate is called the "*membrana vorticosa*," in consequence of these trunks being arranged in whirls or vortices, which end in central sinuses. (see Fig.) These trunks, which conduct the blood from these veins, escape through the sclerotic, and end in the opthalmic. The layer in which the arteries are in the ascendant, is the *membrana Ruyschiana*, and the arteries are from the short ciliary trunks. The pigmentary layer consists of cells containing pigment granules. On this depends the color of the membrane. No nerves can be said to belong properly to the choroid, though they pass over its surface. The anterior part of the choroid, by a separation of its constituents, part passing to the ciliary ligament, and a part folded back upon itself, leaves a notch or groove between, into which is inserted the iris. This inner layer is shaped into a series of plaited processes, "the *ciliary processes*."

Ciliary Ligament.—This ligament is composed of fibrous tissue, and connects the sclerotic, corneal and choroid tunics together. The white line, *annulus albidus*, visible around the posterior limit of the cornea, marks the situation of this ligament. The ciliary processes are opposite to it, and have the same direction. The ciliary muscle, consisting of smooth muscular fibres, extends between this ligament and the processes.

Fig. 27, is a section of the eye in which the

sclerotic has been cut away, except a few flaps seen reverted. The whirl-like arrangement of the veins is displayed, and then again are seen to end in the ciliary vein. A short distance below, runs forward the long ciliary artery, and, crossing the veins, some of the ciliary nerves.

Fig. 27.



Iris.—This is a muscular diaphragm suspended in the eye, with a perforation in the centre—" the *pupil*,"—for the admission of light, and which is not exactly in the centre. It is let into the groove between the ciliary processes and ligament, so that the ciliary ligament, processes, and iris, are on a line with each other. Its muscular fibres are arranged circulary and radiatory: the first constituting a rim for the pupil, the latter extending in straight lines to every part of the circumference, so that its surface presents a well marked fibrous appearance. It possesses also, fibres of connective tissue, disposed like the muscular. The vessels which supply the iris, proceed from four sources: *First*, many branches from the *short ciliares* belonging to the choroid, and which thus establishes a direct vascular connexion between the two membranes: *Second*, from the *long ciliares: Third*, from the *anterior ciliares* which pass to the iris, after breaking up into small trunks upon the ciliary ligament; and *Fourth*, vessels which come from conjunctiva piercing the anterior part of the sclerotic. The course of these vessels is in tolerable straight lines with free lateral communications ending at the pupillary margin. The nerves have an analagous distribution and come from the ciliares. In the fœtal eye, antecedent to the eight month, the pupil is occupied by blood vessels and connective tissue forming a membrane, the "*membrana pupilaris.*" In addition to the elements already enumerated, the iris possesses a layer of pigment on both its posterior and anterior surface.

Retina.—This is the third and innermost coat of the eye; it is continued forward from the optic nerve almost to the ciliary processes terminating by an undulating border, the "*ora serrata*," from which it is attached to the lens by a vascular extension, the "*Zone of Zinnii.*" It is very soft in its texture, and of a gray color, with a faint shade of pink. This membrane is the nervous coat, and exceedingly complex in both its elements and their arrangement. Its most superficial portion consists of bodies like rods and cones, beneath which exists a stratum of different shaped granules, and still deeper another which is more directly to be considered as the extension of the optic nerve, minus its neurilema. The retina is supplied with blood vessels from the *arteria centralis retinæ*, which enters the eye through the optic nerve, and then divides on its under surface into small branches, which end in a vessel at the ora serrata.

Practical Remarks.—Though the ciliary nerves are placed between the choroid and sclerotic, yet it is doubtful whether they suffer as much from distension of the ball as some authors allege. The grooves on the inner surface of the sclerotic protect them from such pressure. The long ciliary arteries which run between the sclerotic and choroid on the inner and outer sides of the ball, being not exactly in the middle line, will teach us that when a needle is to be passed into the ball, that line should be selected. The choroid being made up in a great measure of blood

vessels, it may necessarily be considered peculiarly liable to inflammatory attacks, and as these vessels communicate freely with the iris, the extension of disease from one to the other is rendered very probable. The choroid resting on the retina, any inflammatory products, will press upon the latter, producing indistinctness of vision, or if on particular points, may develope spots before the eyes, as they are described ,something similar to the *muscae volitantes*, yet differing in the circumstance, that the former are fixed, save when the eye is moved. The veins of the choroid may become varicose at different points, and bring about the same condition. The opthalmoscope, by revealing the deep-seated structures of the eye, which otherwise are without our range of observation, has added immensely to the fund of positive occular pathology.

Long-continued use of the eye, like that of any other organ, determines an extraordinary supply of blood. The tax upon the resisting quality of the walls of the vessels, especially of the veins, and perhaps from causes operating upon the nerves also, the vascular walls yield, becoming distended or congested. Such a change, of course, cannot occur without pressure against the retina beneath, and hence may be explained that diminution in vision, which certain persons are known to complain of, after steadily and protractedly directing the eye to one object, or class of objects.

The pigment of the choroid, which is designed to absorb the circumferential rays of light, is sometimes absent, as in albinoes; hence the defect of their vision in a strong light. It should be remembered that the distinctness with which the choroidal vessels will be seen by the opthalmoscopist will depend upon the amount of pigment existing in the tunic. The less in quantity, the more complete and large they appear. Within the annulus albidus, or sclerotico-corneal union is seen, in certain individuals, a white or yellowish ring, the "*arcus senilis*," a true fatty degeneration, the oil-drops collecting in the deeper layers of the cornea. Occasionally little processes of a like nature run down from the arc, like short radii. Here the fat-drops have probably found their way between the elastic and proper corneal layers, where the former runs down in little pillars upon the iris, described in a former communication. This condition is regarded as significant of a more extended pathology, such as a similar alteration in the heart, bloodvessels of the orbit, etc. It is not at all peculiar to the aged, as the name would imply, being seen at all ages, from sixteen upwards. The ciliary ligament being opposite the sclerotico-corneal line, and also the ciliary processes, both of which contain many vessels, and the former many nerves, no instrument should enter the eye through this line.

The ciliary muscle may undergo a fatty change, and if it really possesses an adjusting power over the focal alterations of the lens, it may explain certain cases of impaired vision.

To appreciate disease of the iris requires a correct knowledge of its healthy anatomy. The color of the eye depends upon the pigment cells which both encrust its surface and lie among its fibres. When the eye is blue it is due to this matter on the posterior surface of the iris. When it is of darker shades, as black, brown, etc., the coloring matter is of a particular quality, and varying much in quantity at different points, which accounts for the lines seen on the front of the iris in such shades.

Possessing circular and radiating fibres, it has the property of contracting and dilating the pupillary opening in its centre, thereby regulating the amount of light admitted upon the retina. When in health, these motions are very delicate, and can be made quite apparent by alternately turning the face to or from a window, or by simply interposing and again withdrawing the hand between the eye and the light. In the aged, this delicate response of the pupil to such tests, is not to be expected in the same degree of perfection, the sensibility of the retina or iris not being so acute as in younger subjects. Thus may its mobility be tested. The iris may be the seat of inflammation from rheumatism, syphilis, or mechanical violence. The description of its anatomical relations to the sclerotic ciliary ligament, pro-

cesses, choroid and retina, as already detailed, would lead us to expect that disease of any one of these may extend to it, or, that when thus affected, all these parts would be implicated, so that a pure iritis, unaccompanied by any further extension of inflammation, is probably a rare occurrence. In iritis a red zone exists around its ciliary circumference, because it is at this situation that an intricate multiplication of interlaced vessels occurs by the minute division of the ciliary trunks before being distributed to the iris. The same is true of the ciliary nerves. The pressure to which these nerves are subjected, from the inflammatory swelling, must be such as to prevent the transmission of their wonted stimulus to the muscular element of the iris, and produce paralysis; hence, when inflamed it is immoveable, or, as there may be certain points where the disease is less intense, and of course less embarrassment to the nerve function, some groups of muscular fibres may be in a state of contraction, in consequence of which irregularity of the pupil will follow, a phenomenon common in the disease under consideration. Immobility may exist after the cessation of inflammatory action, from the lymph adhesions: hence, the value of mercury and iodine as sorbefacients.

The main vessels of the iris run between its radiating fibres; when they become engorged they level up to the surface of these, and thus it is that, in iritis, its fibrous appearance is lost. Lymph, when effused, will gravitate towards the most dependent portions of the tissue in which it is thrown out; so, in this disease, the margin of the pupil becomes tumid and thickened. It may be occasioned, in some measure, also, by the pupillary circle of anastamosing vessels. In the iritis of rheumatism converging ridges appear on the organ. These are produced by pressure upon the principal channels which receive the veins of the iris, the walls of the latter becoming distended. Among the other phenomena which have been noticed, we must not overlook the change of color which occurs in the inflammations of this structure. This is a green, the cause of which is to be found in the aqueous humor, which, under such morbid states, becomes yellow—very much such a change as any surgeon has noticed in hydrocele or ascites.

Inflammatory products are very prone to block up the pupil, in which case the light cannot reach the posterior part of the eye; the dilatation of this is regarded by many, therefore, as important, so as to increase the opening, and render such an accident less likely to take place. Such is, in part, the reason for making applications of certain agents which possess a dilating power over the pupil, as belladonna, etc. The operation for artificial pupil consists in making an incision through the iris; the subsequent retraction of the divided muscular fibres may be of itself sufficient, but as the lymph deposited among the fibres of the tissue will counteract such a retraction, the wisdom of excising a portion of the membrane will appear obvious. When reasons exist for making a pupil near the circumference of the iris, as in certain corneal opacities, etc., its connection is such that, by a due exercise of traction, it may be pulled out from its connections with the ciliary processes. The membrana pupilaris may remain after birth, and cause congenital blindness.

The condition of the pupil is placed among the pathognomonic signs of certain conditions affecting the cerebral centre. Thus in concussion it is generally contracted, while in compression it is dilated. Anatomy does not positively enlighten us on these points.

The functions of the retina and the iris are so related to each other—the one perceiving, and the other regulating the amount of luminous particles—that it is quite natural to expect, in diminution of function of the former, active pupillary contraction of the latter should cease. So permanent dilatation of this opening is very often found conjoined with such a state—the "Mydriasis" of authors. The amaurotic eye offers the same appearance.

Oculists, to determine the condition of the retina, place a body with a small hole in the centre before the eye; this will serve as pupil, and if the above membrane is sound the patient will be enabled to see properly. The iris may be congenitally absent, or a very

small rudimental ring exist. Such persons cannot stare the light, the lids are rapidly closed and opened, and the head unsteady.

Illustrations of Hospital Practice.

PENNSYLVANIA HOSPITAL.

MAY 19, 1860.

MEDICAL DEPARTMENT.—Service of Dr. Levick.

(Reported by J. Solis Cohen, M. D.)

Gonorrhœa, Ophthalmia, and Rheumatism; Acute Rheumatism, Propylamine; Chronic Diuresis; Pathological Specimens—Dilatation of the right side of the Heart, fatty degeneration of the Heart, Liver, and Kidney, with cysts of the Kidney.

Gonorrhœa, Ophthalmia, and Rheumatism.—As I wish you to note the gradual changes in this case, I again present him to you. You will notice a marked improvement in his condition since the last clinic. The chemosis is entirely gone; there is now scarcely any purulent discharge, the process of ulceration appears to be entirely checked, and the cornea is beginning to assume its usual transparency. The treatment heretofore adopted has been continued up to this time. I think we may now omit the corrosive sublimate and the sarsaparilla decoction, continuing the bark and the porter. There is some little improvement in the condition of his joints, but the gonorrhœa continues much as before. You will find some writers denying that there is any association between the rheumatism and the gonorrhœa, which precedes it in these cases. They are not, however, sustained by the majority of opthalmic surgeons, and the great experience of Cooper, Lawrence, Mackenzie, and others, is against them. In the first case of the kind which I have shown you, the subject of it had had four attacks of gonorrhœa, in each of which he had suffered severely from acute rheumatism, while, with one exception, he had never at any other time had rheumatism. He also suffered from rheumatic opthalmia, differing, however, very much from the case now before you—there having been in his case no application of the gonorrhœal virus to the eye.

Acute Rheumatism, Propylamine.—Ellen S., aet. 28, single, never was very strong, yet has had little serious illness. Two years ago, she had an attack of acute rheumatism, from which she was confined to her bed for two weeks, and subsequently from a relapse for four more. She has been well since then until last Saturday: while engaged in house-cleaning, she took cold, had pain in her back, felt cold, but had no decided chill. Two days later, her ankles began to swell, which was followed by swelling of the knee joints and of the hands. She has now dull pain in her shoulders, and her knuckles are very tender, red and painful; both hands are affected, but the right is most so. She took Dover's powder and acetate of potash for a few days before her admission. This, then, is a case of acute rheumatism, or, as it is now fashionably called, rheumatic fever. It is a well-marked typical case, with perhaps one exception, the absence of very marked febrile excitement, which almost always attends this form of the disease. There is, it is true, in this case a furred tongue, and an accelerated pulse, but there is but little general heat of the surface. We will carefully watch the case, and from time to time call your attention to the various symptoms which present themselves. My chief object in bringing her before you now, is to call your attention to a remedy which has recently been recommended in the treatment of rheumatism. I mean *propylamine*, or rather, in this case, its salt, the *chloride of propylamine*. So far as I am aware, attention was first called to this article in the treatment of rheumatism by Dr. Arvenarius, of St. Petersburg, who recommends it in the highest terms, having derived great benefit from its use in 250 cases, which came under his care. Influenced by his statements, which I read in Bouchardat's *Annuaire de Therapie*, I tried propylamine in five or six cases in this hospital about a year ago, but with no very decided results. Since then various commendatory testimonies respecting it have appeared in our journals, and I propose therefore to give it another trial. Professor Proctor, of this city, has recommended it in the form of a chloride, and I now exhibit to you a very beautiful specimen of this salt, prepared by the Messrs. Crew, Rogers & Crew, manufacturing chemists of this city. These gentlemen state, that it is best administered in the form of solution, and they propose the following formula:

℞ Propylamine, Chloridi, gr. xxxvi.
Sacchari, pulv. - - ʒij.
Aq. Menthae Pip. - fʒvj.
Ft. sol. &c.
S. Dose—a tablespoonful every two hours.

You perceive that it is in beautifully white, minute crystals, and that it has the odor of herring pickle, from which it is chiefly obtained, though it may also be procured from cod liver oil, ergot, &c. I must confess I am always incredulous as to the worth of new remedies, which are vaunted as specifics; but this comes to us recommended so highly, that we are bound to give it a trial. Had we waited until we learned the rationale of the action of sulphate of quinia, we might yet be deprived of its use.

Chronic Diuresis.—You may, perhaps, remember the history of the patient who is now before you. This case has been to me one of much interest, and

I will briefly repeat its leading points. He is a Scotchman, aet. 42, employed as a gardener. He came to America fifteen years ago; soon after which he had intermittent fever, from which he suffered at intervals for two years. This left him with tenderness of the liver, for which he was profusely salivated. Eight years later, he was again salivated for a similar affection, after an illness of five months; was well after this until last Christmas, when, after some exposure to the cold, he was seized with severe pain in the eyes, with pain in the limbs, with great thirst and frequent desire to urinate The pain in the eye has disappeared; but the other symptoms have continued. He applied to an apothecary for relief, and was again salivated. After this he "took mandrake, and lost a gallon (?) of blood by piles." Subsequently, under medical care, he took, with great advantage, rennet, and later, pepsine. *Present condition*—anxious expression of face; skin dry and harsh; gums spongy, disposed to ulcerate, and exhaling a peculiar odor, with an excess of saliva. He complains also of pain in his knees, and of nervous tremors, and a general sense of weariness. He has no cough, and his lungs afford no evidence of disease. At the time of his admission, he was passing eight pints of urine in the twenty-four hours. This is of a very pale, transparent hue. It has no decided odor; its specific gravity is 1005, and testing it by Moore's test, by Trommer's, and by evaporation, we can find no trace of sugar. It is then a case of *chronic diuresis*. I directed him a warm bath and frictions to the surface, with the view of promoting the action of the skin. To check the secretion of the kidney, gallic acid and opium were prescribed. No medicine acts more promptly in checking the secretion of the kidney than opium; but there are grave objections to its constant use in diabetes. The patient soon learns how much comfort it affords, and becomes an opium eater; it also disturbs the digestive functions.

Impressed with these views, I contented myself with the external exhibition of gallic acid in doses of gr. v. thrice daily. In the choice of an astringent for this purpose, gallic acid is much preferable to its congener tannic acid. The latter *is not absorbed as such into the blood*, but undergoes a conversion into gallic acid before it can reach the kidney. He was under this treatment increased to a scruple daily, with the following result: On the 8th he passed in 24 hours twelve and a half pints; had some rheumatic pains, which were relieved by soap liniment; pulse natural. 10th. In the last 24 hours he took four pints of water, 2 pints of milk, and 1 pint of soup, in all 7 pints of liquid, and passed 12½ pints of urine. On the 11th took 5 pints of water, 1 pint of soup, and 2 pints of milk, passed 12 pints of urine; pulse in the erect position, 100; has distressing tremors. On the 13th he passed 12 pints, and took 3 pints of water, 2 of milk, and 1 of soup; had a passage from the bowels from an enema. On the 14th passed 11 pints, and took 5 of water, 2 of milk, and 1 of soup; had a slight alvine evacuation. Having recently read an account of a very similar case in the London Lancet, in which belladonna was used with good effect, I now prescribed, in addition to the gallic acid, pills of the extract of belladonna, gr. ¼, thrice daily. In the next 24 hours he took 2 pints of milk and 4 of water, but no soup, and passed *only six and a half pints*. On the 17th he took 3 pints of water, 2 of milk, no soup, and passed 7 pints; his pulse nearly 100, and pupils somewhat dilated; says he has a little more dryness of the throat, but that he feels less nervous and more comfortable, though he has very strange dreams. He is now under this treatment. In the case alluded to, from which I derived the suggestion of belladonna, "it was given on the ground that as it was one of the best remedies for allaying irritability of the lower urinary organs, it might have some influence on the higher organs, namely, the kidneys themselves." I believe it exerts a general calming effect on the nervous system, and thus indirectly checks the urinary secretion. We all know that urine is secreted rapidly under the influence of fear or high mental excitement. Hence diuresis is found in hysterical women, and in nervous diseases generally. Be the modus operandi what it may, the drug is well spoken of, and seems thus far to have been of use in this case. You could not fail to notice the disparity between the amount of liquid excreted and that taken into the body. Some absorption may have taken place from without, but such a drain upon his tissues and fluids must soon break down the patient, unless it be checked. The weather during most of this time has been damp and cloudy.

Before the urine had been tested, I had fully expected to have found this to be a case of genuine diabetes, and had noticed, as a curious coincidence, that the first symptom complained of was a severe pain in the eyes. Some recent observations by Mr. France have shown that even double cataract is a not uncommon attendant of diabetes. In some interesting experiments performed by Dr. S. W. Mitchell, of this city, and confirmed by Drs. Hunt and Hewson, it has been demonstrated that if a solution of sugar be introduced into the blood of living frogs, their eyes speedily become cataractous. While I cannot say that there was not sugar in the urine early in this case, the most careful tests have failed to detect the presence of any at this time. I have not time to make any further remarks on this subject, but will now exhibit to you some recent *pathological specimens*.

Dilatation of the Right Side of the Heart.—From a man æt. 50, who was admitted four months ago with asthma. He was an Italian, who spoke with difficulty, and hence no history of his case could be obtained. He had great dyspnœa, much increased on exertion, a universal purplish hue of the surface, a feeble pulse, and the sounds of the heart were indistinct. There was marked pulsation of the jugular veins. The diagnosis was emphysema of the lung, with dilatation of the right side of the heart, which is confirmed by the post-mortem appearances. The surface of the lungs is studded with emphysematous bullæ, and the right auricle and ventricle very much dilated. There is some hypertrophy of the musculi pectinates, but there is no deposit upon the valves of either side.

Dr. L. then showed to the class the insufficiency of the tricuspid to close the auriculo-ventricular opening, and that regurgitation must necessarily result, and an impulse be thus imparted to the descending venous current of blood, the jugulars, &c. This was doubtless produced by the obstruction presented in the lungs to the transmission of blood from the right side of the heart.

Fatty Degeneration of the Heart, the Liver, and the Kidney, with Cysts of the Kidney.—These specimens were removed from the case of Bright's disease to which your attention was called at the last clinic. The patient, when before you, was very ill, and, as I feared might be the case, he died on the following day. The lungs, you will perceive, are highly edematous; when cut into and compressed, liquid pours from them in a stream. There are patches of recent lymph on the pleura. The heart has undergone, to a great extent, fatty degeneration, and is an excellent illustration of this pathological condition. There is no valvular disease, nor were there during life any abnormal murmurs.

The liver is the most striking illustration of fatty degeneration that I have ever seen. It seems to be nothing but fat. It is of a canary color, breaks under the finger, greases everything brought into contact with it. Its size is rather greater than that of a healthy liver. The kidneys, too, have undergone a similar change. Their size does not differ much from that of health, but their whole surface has undergone the change into fat. They are even of a lighter yellow color than the liver, are greasy to the touch, and both externally and internally present the same fatty change. On the exterior superior portion of the right kidney are three serous cysts, ranging in size from a marble to a large walnut. Through the kindness of my friend, Mr. William Darrach, Jr., I am enabled to show you a drawing of the appearance of these structures under the microscope. The first figure represents the condition of the liver, and shows the hepatic cell fully occupied by oil globules to such an extent as almost to obliterate the cell itself. Besides this there are numerous isolated oil globules covering the field of the microscope. The kidney presents the appearance shown in figure 2. The healthy tubular structure is in great measure obliterated, and nothing to be seen but free nuclei and oil globules. The post-mortem, then, in every respect confirms the diagnosis made when you last saw him, though the degeneration had advanced to even a greater extent than we could have foretold. You remember I then sought to impress on you the value of examinations of the urine. In this very case you have the most positive evidence of its value. The microscope showed a remarkable excess of oil in the urine, and the general symptoms were those of Bright's disease, so crowded indeed was the field with oil globules, that it was not until a second specimen had been tested that we could believe that it was not due to the use of a bottle containing a little oil in it. Here, then, was a fatty kidney; the rational symptoms were those of fatty degeneration of the heart, and as was then remarked, the association with these of fatty liver constituted a triple lesion not uncommon. The treatment adapted to the earlier stage of this disorder I have already given you; in such a stage as this it would of course be unavailing.

JEFFERSON MEDICAL COLLEGE.

WEDNESDAY, MAY 23d, 1860.

Surgical Clinic by Prof. Gross.

Specific Laryngitis—Irritable Mammæ in Males.

Specific Laryngitis.—(See Reporter 26, p. 159.)—The general condition of the patient evinces manifest improvement, as does also the appearance of the larynx. A solution of nitrate of silver was applied to the parts by means of a mop, and it was directed, in case the impression left be very unpleasant, to give a quarter of a grain of morphia, to relieve the irritation, caused by the introduction of the instrument.

Dr. Gross remarked that this practice was first introduced to the notice of the profession by Trousseau, the eminent French practitioner, in a work on laryngeal phthisis, translated twenty-two years ago by Bedlock. Cauterization of the air passages, however, did not attract much attention, until again brought into notice by Dr. Horace Green, of New York, who has employed it in many cases, with happy effect. He professes to be able to introduce an instrument into the bronchial tubes; others deny the ability to do this under any circumstances, alleging that when the instrument passes down the throat, it slips into the œsophagus, without passing into the air-passages. Erichsen is of this opinion.

Dr. Gross thinks, from his own experience, that an instrument can be introduced into the larynx and also into the trachea, but questions the practicability of passing it into the bronchial tubes. It requires much dexterity to introduce it even into the larynx. During the exertions made by the patient in the attempt to introduce an instrument, especially in the irritable condition of the respiratory organs, for which the operation is performed, it is rendered exceedingly difficult to insinuate a probang or a mop; but it can be done by a skillful and experienced operator, though often only after repeated trials.

Irritable Mammæ in Males.—Two cases.—The first case of this peculiar affection occurred in an apparently healthy young man, 31 years of age. The left breast is considerably swollen, and tender on pressure; he has a little pain, especially when warmed by exercise. The breast has been enlarging for five months, and has troubled him altogether for about a year. The pain is sometimes increased, sometimes entirely absent. The enlargement is circumscribed, but is evidently confined to the glandular structure. This is the irritable breast described by Sir Astley Cooper, and neuralgic in its character, though the change in structure has probably been consequent on a deposit following some inflammation in the organ. This is rare in the male, though found often in young girls at about the commencement of the menstrual function.

The second case is in a young farmer, 19 years of age, who thinks it has been consequent upon a kick received from a cow. It has existed about three months, and the gland is getting larger and larger, though it has not yet reached the size of the other case. The patient is otherwise in excellent health, but complains of the same symptoms of uneasiness as the first case. The affection, as in the other case, is limited to the left gland.

Treatment:—In both cases alike, consisting of the application of an opium plaster four inches square so as to cover the whole of the affected gland, together with a portion of the surrounding integument; first shaving the parts, and washing them with soap and warm water; the plaster is to be worn for two weeks. Another good plaster in these cases is the gum ammoniac and mercurial plaster, sprinkled with morphine, to render it anodyne. Various stimulating and anodyne liniments have been used, the indication always being to remove pain and promote the resorption of effused fluids, upon which the induration depends.

Three times a day, both patients are to take a pill composed of five grains of quinine and the twelfth of a grain each of arsenious acid and morphine, and a thirtieth of a grain of strychnine, as a tonic, anti-neuralgic, and to counteract any miasmatic influence to which they may have been exposed.

Diet to be plain and simple; bowels to be occasionally purged; fatigue, and exposure to cold to be avoided.

WILLS (OPHTHALMIC) HOSPITAL.

SURGICAL DEPARTMENT.—Service of Dr. Littell.

For the Medical and Surgical Reporter, by Ch. E. Hackley, M. D.

Cases 1, 2, and 3—*Cataract.*—Nos. 1 and 2 were cases of capsulo-lenticular cataract, presenting nothing worthy of particular remark. The operation of solution was performed in both instances. The single-edged needle was introduced at the usual place, through the sclerotica, the capsule opened to an area, somewhat larger than that of the undilated pupil, and the anterior surface of the lens shaved off as far as practicable, without displacement of that body. It is thought better to repeat the operation once, and even a second time, rather than to disturb the relation of parts and injure the interior of the eye by attempting to do too much at once.

Case 3—*Congenital Capsular Cataract.*—The patient is twenty years of age; he presents the oscillatory motion of the eyeball, usual in such cases. The cornea, beautifully conical, without opacity, strongly refracted, and reflected the light. The anterior chambers were unusually large. The external portion only of the pupil of the left eye was obstructed by the capsule, the inner part being clear and the lens wanting. The capsule of the right eye was entire, and so much thickened as to have the appearance of calcareous deposit on some parts of its surface. It was proposed to introduce the needle, as in the other operations, enucleate the lens, if any portion of it remained, and open up the centre of the capsule to the extent of an ordinary sized pupil; or, in case this could not be done, to separate the capsule from its connections, and afterwards to incise the cornea at its circumference, and extract the capsule through the opening, thus made. Happily it was unnecessary to incur the additional risk, this procedure would have entailed. The capsule included in its centre a small lenticular nucleus, which was easily detached and an opening made, which, to the great joy of the patient, admitted at once a flood of light.

Cases 4 and 5—*Cases of Artificial Pupil.*—In No. 4, only a small segment of the cornea at its circumference was transparent; an opening was made through this, as near as possible, to the margin, a piece of the iris drawn out by a forceps, (having very delicate claws projecting laterally at its points,) and removed by the curved scissors.

No. 5, had been the subject of a previous opera-

tion, in which the cornea was opened and a portion of the iris removed by excision. The centre of the iris was drawn toward the cicatrix, the pupil entirely obliterated and vision quite extinct. The single-edged needle was introduced, and an opening made through the iris, partly by dividing and partly by separating its fibres, to an extent deemed sufficient for useful vision. Some blood was necessarily effused; and until this is absorbed, the result of the operation will be undetermined.

No. 6, a case of *Pterigium*. It was removed by raising the thickened membrane at its apex, and excising it with the scissors.

Medical Societies.

MEDICO-CHIRURGICAL COLLEGE OF NEW YORK.

Pulmonary Apoplexy as an Accident of Labor—Excision of the Entire Radius—New Instrument for Vaccination.

A regular meeting of this Society took place May 17th, 1860,

Dr. Bronson in the chair.

Dr. A. K. Gardner presented a paper on *Apoplexy of the Lungs as an Accident of Labor.*

As this is a very valuable paper on this somewhat rare complication of labor, and one about which our standard authorities say but little, we present it to your readers in full.

Case 1.—I was called August 14th, 1851, at 3½ A. M., to Mrs. ———, æt 24, lying-in with her first child. I had never seen her previously. She was taken with pains about an hour before my arrival, accompanied by a free evacuation of the bowels and vomiting. The os not entirely effaced; grinding pains quite frequent; noticed a slight cough, accompanied with some expectoration, which she stated had existed for "some time." I supposed it had originated from sleeping for several nights previous with only a sheet for a covering. She complained of some head-ache for which I recommended the application of vinegar.

Returning home, I saw her again at 9 A. M. The vomiting had continued, and she still complained of head-ache, though it did not appear to be excessive. She replied to all my questions, and kindly inquired if I would not have a glass of wine, and on my refusing, alleging the early hour of the day, she urged me, saying that I must feel weary from having been called up in the night. This I mention to show the condition of her mental powers. After waiting about half an hour and preparing to leave again, I remembered that she had not had a pain since my second coming, and I therefore seated myself by the window to notice its character, and then very shortly the nurse left the room, stating that she was asleep, as was evident from the resonance of the breathing. The sonorousness rapidly increased to a marked snore, and very soon assumed an almost stertorous character. I then approached her, and observing her more carefully, half fancied that the hand of the arm on which she was lying, trembled. As the respiration became noisy, I touched her hand to wake her. When she had been sleeping for about five minutes, and not rising, I shook her with increasing violence, but she was insensible, and all attempts to arouse her were fruitless. I confess that I was entirely ignorant as to the cause of the condition in which she then was, having never seen such a speedy change from apparently perfect health, to this one of utter powerlessness. Imagining it however to be symptomatic of convulsions, and finding the pulse full and rather hard, it was but a minute's work to tear a ribbon from a hat lying near, bind it around her arm, and open a vein. This bled tolerably quick until about half a pint was discharged, and then ceased, when I opened a vein in the other arm. Seeing the emergency of the case, and not wishing to be alone responsible for the result, I sent anywhere for aid. Dr. S. S. Purple chanced to be near at hand, and came most opportunely, and we both endeavored to encourage bleeding from both arms, but in vain; for, in fifteen minutes after she had spoken the above related conversation, she was dead. A bloody mucus issued from her nose, the lips and fingers were blue, but farther than as indicated, there was no sign of congestion of the brain, as the temporal arteries were imperceptible. She gave no sign of consciousness after she entered upon that sleep, which proved to be but the introduction to death. I ruptured the membranes early on noticing the change, and the os was then scarcely the size of a dollar. With Dr. P.'s consent I gave a certificate of death from rupture of one of the blood vessels of the lungs during labor.

The husband would not allow the cæsarean section to be performed in the hope of saving the child, or a subsequent *post mortem*.

Case 2.—I was called at 5 A. M., March 29th, 1860, to Mrs. ——— in labor with her first child. She was about 25 years of age, and of remarkably full habit, and of a full Saxon appearance and temperament. During her pregnancy she had been very well, until about two month's previous to her labor. Being naturally of a joyous, excitable temperament, the change to being moody, peevish, and sometimes fits of extreme passion attending with great depression, accompanied by an abundance of tears, was very marked. At the same time there

was much insomnia, gloomy forebodings; there was also disturbance of vision, black specks floating before the eyes, and sometimes darkness or shadows passing, accompanied with giddiness. The appetite was generally good, and the egestions sufficient in quantity. The urine, although often hysterical in its quantity, showed albumen on being exposed to heat. This was removed, and the cerebral symptoms also disappeared a few days before labor came on, under the influence of the following

℞. Mag. sulphatis ℥ii.
Potassæ et sod. tart. ℥i.
Spts. nit. æth. ℥i.
Tinct. aconit; rad. rasur. ℥ss.
Syr. gaulth. proc.
Aquæ puræ ää ℥iii.

Take a tablespoonful every night, and repeat in the morning if necessary.

During a portion of the time the sulph. mag. was omitted; the mixture containing it was taken but every second or third day, in consequence of its too free action upon the bowels. The same prescription, with this omission, was, however, taken for several weeks, and acting freely upon the kidneys, removed the slight puffiness of the face and the œdema of the extremities, which had existed in a slight degree. At 5 A. M. found the neck of the uterus effaced and the os just admitting the finger, pains frequent and irritating There had been no sleep during the night, but now there was a great tendency to somnolency, characterized by a constant and immediate dropping off to sleep at the cessation of every pain, and accompanied by a snoring respiration, which was reported to have existed during the previous two months. The patient could not lie down with ease, and especially during a pain was compelled to be raised up to an almost sitting posture. I was anxiously waiting for convulsions, which I judged threatened her from the above detailed symptoms. At 11 A. M. the head having descended into the cavity, and presenting in the first position of Baudelocque, accompanied by forcing pains of some strength, an irritable and persistent cough commenced, accompanied by a profuse glairy mucous expectoration—a large mouthful every minute—which rapidly became more and more tinged with a bright red color. To relieve the apparent bronchial irritation, I administered a few drops of Squibb's chloroform by inhalation; but seeing no benefit, I soon stopped it, without any anæsthethic or other result being perceptible. In about fifteen minutes from the commencement of the cough, the respiration increased to more than twice its normal frequency, constantly interrupted by efforts to spit up the more rapidly increasing secretion, now very bloody in color and character, and of a bright arterial hue. The finger nails now became blue, and of a slaty shade, the lips blue, the eyes glassy, and the entire conspectus one indicating a most dangerous situation. I had in the meanwhile sent for my instruments, but could not see how artificial delivery would avail anything. Up to this time there was not a drop of blood in the profuse vaginal discharge. Here the remembrance of the previous case, just narrated, came to my aid, and I determined to bleed, notwithstanding the strenuous objections urged by the lady against venesection at several periods before, during pregnancy. I therefore set her up in bed and bled in a tolerable stream about twenty ounces. The effect was almost miraculous, the respiration gradually returned to its normal standard, the cough and the bronchial secretion were both entirely and immediately arrested, like the shutting off a faucet. The natural color of the hands and lips returned, the danger was passed, and both patient and attendants again breathed freely. In a few hours a girl, weighing nine pounds, was safely delivered, and both mother and child subsequently did well. (It is worthy of note that during the above labor, from first to last, there was not, even after the child was born, till the placenta was delivered, a single drop of blood sufficient to color the clothing or bedding red, nor was there the slightest laceration or even abrasion of the perinæum, fourchette, or vaginal mucous membrane and the subsequent lochia were small in quantity, and at the end of two weeks there was not, even when the mother was going out riding, and walking about the room, any inconvenient or noticeable discharge. This case is but one of many in my experience where there has been no injury done to the perinæum or fourchette, as some state is *always* effected in a first labor, however simple.)

These cases I venture to call pulmonary apoplexy, although I am well aware that such a nomenclature is not borne out or authorized by any writer from whom I can quote.

Copland, in his erudite dictionary, defines apoplexy pathologically as "defective vital energy with hæmorrhage or derangement of the vascular system of the brain, and their consequences," and further quotes *Cruveilhier*, who confines the term apoplexy "to the occurrence of spontaneous hæmorrhage in the brain," dividing it into two varieties:

Dunglison says, "at the present day the term apoplexy is employed by many writers to signify *interstitial hæmorrhage* or every effusion of blood which occurs suddenly into the substance of an organ or tissue." Hence we speak of cerebral, pulmonary apoplexy; but pulmonary apoplexy is considered to be a hæmoptysis, although a faint recognition of the characteristics I am desirous of establishing is to be found in that "a sudden and terrific kind of hæmoptysis is sometimes met with,

consisting in a great eflux of blood to the lungs." This has been called pulmonary apoplexy.

Dr. GARDNER, after alluding at some length to the literature upon this subject, remarked that in the discussion which ensued, upon reading this paper at the Academy of Medicine last evening, (May 16th,) it was urged that "the diagnosis of the first case was not clearly made out, and that the second was one of *œdema*, and not apoplexy of the lungs, and that a rupture of a blood vessel was necessary to make the case one of apoplexy. Here I take issue. Œdema of the lungs, according to Laennec, the only authority on this disease, is "the infiltration of serum in the substance of the lungs," (which may have been the effused fluid in this case,) yet the expectoration was finally of a deep pink color; while Laennec says "œdema has more or less of a watery expectoration, of a consistence and appearance resembling white of egg, dissolved in an equal part of water." Furthermore, œdema of the lungs is rarely a primary and idiopathic disease. It is commonly merely the consequence of some other affection, and often takes place a few hours before death; nevertheless in some cases it has certainly lasted several weeks, and even months, "as in the few cases given."

Copland says, "it is probable that it is never or very rarely seen, but consecutively upon anasarca or external œdema, and the treatment is dry cupping, diuretics, digitalis, senega, camphor, and the means ordered for asthenic pneumonia."

Watson in his theory and practice says, "this condition of the lung seldom takes place, except as a part of general anasarca, and it is capable of no other rational treatment than such as is suited to the original disorder." His remarks upon pulmonary apoplexy are deserving of attention in this connection, inasmuch as he says that "the lungs without undergoing any actual change of texture may in this manner *be so chocked up and crammed with blood* as to preclude any subsequent admission of air, and again he says, "now as in most of these cases, the hæmorrhage is a hæmorrhage by exhalation, and depends upon congestion, active or mechanical, we shall stay the hæmorrhage if we remove the congestion."

The title "apoplexy" I have stated above, is not a faultless one, but in my opinion far more preferable than that of œdema, for the former implies a sudden character of the disease, rapid in its invasion, terrific in its manifestations, and speedy in its termination. The latter is slow in its coming on, preceded by other, and often kindred dropsical affections, not very alarming in its symptoms, and tardy in its results. If it be actually œdema, the ass has put on the lion's skin. But the name is of little importance; opportunities will probably not be wanting for accurate autopsies to give true data for better descriptions and a more accurate designation.

As to the *etiology* of this serious malady, we shall have some difficulty in deciding. There was a stasis of blood in the lungs, and this might have various causes. "Irregularity of the circulating fluid," as some would call it, is only giving a different name to the same thing; for what causes this irregularity? Is it a mere accident? But accidents do not occur in the mechanism of the human organism. Was this irregularity caused by some obstruction in the circulation in some other part of the system, compelling the mass of the blood to find some other habitat? Did the loaded uterus in its changing dimensions, as the contents were gradually escaping from it, press upon the vessels leading to the kidneys, upon the abdominal aorta? Did the advancing fœtal head obstruct the circulation in the lower extremities by pressing upon the iliac vessels? Were there clots of blood formed from the arrested uterine circulation and broken off, carried to the pulmonary vessels and there forming a dam to the returning blood, thus producing a local mechanical arrest? Or shall we go back and seek some more mysterious and even more speculative aberrance of the nervous forces, for the *fons et origo?*

Was the disturbance of the head, the loss of consciousness, in the first case, caused by a simultaneous cerebral apoplexy, or was it merely the natural consequence of the vessels in the brain being loaded with carbonized blood, from the want of the primal action of the lungs? Or finally, shall we in the "house that Jack built style," say that it was uræmic poisoning that caused the loss of nervous power, that caused the pulmonary stasis, that caused the death of number one, and nearly effected the same result in number two? It is indeed easier to ask than to answer such questions of cause, especially with no accurate post mortem knowledge upon which to make a starting point for a reply. Finally, as to the *treatment* of pulmonary apoplexy, occurring in the course of labor, there appears to be but very little to be said. If the cases which I have given are fair types of this disease, coming on with little or no premonitory symptoms, sudden in their manifestations, scarcely noticeable until death from asphyxia is imminent—if this is the ordinary course of the disease, it would then appear that there was no opportunity for prophylactic measures. The *coup de tonnerre* must be met with a *recoup* of corresponding proportions and power. The attack must be made on the *vis a tergo;* and by the prompt withdrawal of blood, in as rapid a manner as possible, not only will any farther effusion be rendered impossible, but a speedy withdrawal of the invading

forces will be requisite to supply the wants of sinking nature. Copious bloodletting will alone be found to be sufficiently prompt and effective. Even this will not perhaps be serviceable, if time is lost in temporizing, so that the simple congestion has had time to effect the rupture of a blood vessel in the lungs, to produce symptomatic convulsions, or to so paralyze the system that nature cannot rally from the double effects of asphyxia, and the shock, from the too long deferred venesection.

All *anæsthetics* I should consider to be contraindicated. In the second case, where some ten drops were given, under the mistaken idea that the irritating cough was of a spasmodic nature, arising from some slight bronchial irritation from previous crying, shouting or straining, no effect was apparent, although any farther administration, I considered, would but have aggravated the symptoms already present.

Premature delivery, unless followed by a profuse hæmorrhage, cannot, as it would seem, be of any avail, as the apoplexy depends but secondarily upon the presence of the fœtus in utero, and if this be so, its withdrawal would be of no immediate benefit as it would not remove the effect. Still it may be in some cases, that the lungs may remain so gorged, even after the bleeding, as to demand the delivery of the fœtus, in order to remove the violent expulsive pains. Under such circumstances, the use of the forceps is both justifiable and expedient.

After the reading of this paper, a very long discussion ensued, in which Drs. Reese, Peaslee, Dewees, Carnochan, and others, took part. We regret very much, that a want of space forbids an extended report of the interesting remarks of these gentlemen upon the above paper. While some of the members were inclined to doubt the accuracy of the diagnosis in the first case, none were willing to consider case second, as one of *œdema*. Dr. Reese related two cases very similar to those of Dr. G., in which he pursued the same treatment, in one case taking *thirty* ounces of blood, with a successful result. Dr. *Dewees* also related similar cases, and remarked that he had heard his father speak of this disease as an accident of labor. The treatment he advised, was prompt venesection from the jugular vein, as he considered distension of the right ventricle to be its chief cause.

Resection of the entire Radius.—Dr. Carnochan presented a patient from whom the *entire radius* had been removed, for necrosis. The bone was exsected from joint to joint. The motion of the hand is almost perfect, the patient being able to write with facility and rapidity. The hand is not quite in its natural axis, as it bends a little inward, while the styloid process of the other side forms a prominent projection. Dr. Carnochan claims this as the first *successful operation* of this kind, and offers a premium of one hundred dollars to any one who can fairly disprove his claim. In conclusion, he remarked, that Dr. Gross of your city, was aware of this case, but he had chosen to omit all reference to it in his late work upon surgery.

Dr. Bronson then presented a new and ingenious instrument for vaccination. It consists of a cylinder, perforated, at its middle by an oval opening, in this cylinder there plays a piston upon which is fastened a piece of *sand paper* so as to be opposite the opening in the cylinder. A small spiral spring at the bottom of the cylinder, to secure a backward motion, completes this simple contrivance. The annexed sketch of the instrument will enable any one, who may wish, to get this "*friction vaccinator*" constructed.

A, represents the piston, with the sand-paper at B; the piston being pressed against the spiral spring D will of course rebound, ready for a new stroke. The opening c is placed directly upon the arm and the whole instrument pressed firmly, by means of the ring E, through which the middle finger is placed, while using the instrument.

The advantages of this instrument are almost too obvious to need notice. Any one much in the habit of vaccinating, knows the difficulty of exposing the *absorbents* without *drawing blood*, especially in children where the cuticle is extremely thin. With the above instrument this difficulty is entirely done away with. The *rapidity* with which vaccination can be performed with this contrivance is almost incredible. Dr. Bronson who was formerly House Physician of the De Milt Dispensary says, that with this instrument he can vaccinate *one hundred* persons in an hour. It is hardly necessary to add, that the coarser the grade of sand-paper, the quicker will the cuticle be removed. No. 2½ will be found most suitable for children.

Gotham.

Of the 33,018 children born during the year 1859 in the eight principal towns of Scotland, 16,883 were males, and 16,135 females; which gives 95·6 female to every 100 male births. During the previous year, the proportion was 93·4 female to every 100 male births.

EDITORIAL DEPARTMENT.

Periscope.

Fatality from Chloroform.—Dr. Kidd, who has given much attention to the subject of chloroform, has observed that deaths attributable to its inhalation have occurred more frequently during the performance of the minor surgical operations. The statistics of deaths from chloroform certainly show a much greater proportion in the performance of trifling operations, as of 85 fatal cases in which the nature of the operations was recorded, 10 were extractions of teeth, 14 removals of toe nails and operations on phalanges, while of this number none occurred in the performance of the large amputations, resection or ligature of large arteries, etc.

Dr. Kidd has therefore hastily concluded from these results, that "chloroform is safer in large than in small operations." He seems to have overlooked the fact of the vastly greater frequency of the performance of small operations, and of course the more frequent administration of the anæsthetic, which is, we believe, sufficient to account for the apparent greater fatality attending minor operations.

Dr. Kidd estimates the number of deaths from inhalation of chloroform to be about one hundred. We think that if this number had been quadrupled it would more nearly approximate the truth. Chloroform never gained general confidence in this country, and its use has within the past few years rapidly declined, yet the deaths referable to it would probably equal one half of Dr. Kidd's entire estimate of fatality from it.

The European origin of chloroform inhalation and its distinguished authorship, has given it a confidence which cannot long be maintained in the face of such uncontrollable mortality, and while the causes of sudden death from it are so little understood.

On the Employment of Santonine in Amaurosis, by M. Martini.—M. Martini, in 1858, communicated a paper to the Academie des Sciences on the effects which santonine exerts upon the coloration of the vision and the urine. In the present communication, containing additional observations upon the same subject by himself and others, he gives an account of the results of his employment of santonine in ocular neuroses. Only three cases are referred to, the most meagre details being given:—1. A woman, 70 years of age, had suffered for some time with defective vision of the left eye, when M. Martini saw her in March, 1859. The pupil was but slightly sensible to light, and was larger than that of the right eye. A slight white cloud was perceived in the aqueous humour, and the patient could scarcely distinguish light. On March 10th the santonine was commenced, with from 4 to 6 grains being given, (how often is not stated,) and on the 15th the patient perceived, several times in the day, objects of a greenish-yellow color, and that even with the bad eye. On the 18th eight grains were given, and the patient began to be able to recognize the countenances of the bystanders. By the 22d objects were observed to be colored yellow, and had become still more plainly distinguishable. The employment of the santonine having been now discontinued, the improvement remained stationary. 2. The santonine having been administered from March 20th to 22d, to a patient amaurotic in both eyes, the retina became much more sensible to the action of light. 3. To a man who suffered from amaurosis of the left eye, being already deprived of the right one, 10 grains of santonine *per diem* were given. In a week's time he was enabled to read some large letters written on a wall.—*Comtes Rendus*, No. xi. March, 1860.

Quinine a Specific for Scarlatina.—Dr. M. B. Sellers, of Oakland, Louisiana, states in a private letter which has been handed to us, that after considerable experience, he believes quinine to be a specific in the treatment of scarlet fever. He has treated fifty cases, some of which were malignant, with quinine, without one resulting fatally, and previous to his adopting this treatment he had several deaths in his practice.

He administers it in full doses, giving to children seven years old five grains every hour until twenty grains are taken. To adults, ten grains every hour until they take forty grains. He does not say whether this dosing is repeated. The quinine treatment was almost exclusively relied on.

Pepsin in the Vomiting of Pregnancy.—M. L. Corvisart, the *Lancet* says, has of late advocated the use of pepsin to allay extreme vomiting in pregnancy.

Reviews and Book Notices.

A Treatise on Medical Electricity, Theoretical and Practical; and its Use in the Treatment of Paralysis, Neuralgia, and other Diseases. By J. Althaus, M. D. Philadelphia: Lindsay & Blakiston.

There was long needed a treatise on the therapeutical uses of electricity, and the present work, comprehensive in its scope and sufficiently elaborate in its details, is well calculated to supply a deficiency long felt. The book is divided in three chapters; the first treating of the forms of electricity, the various apparatuses in use, etc. The second chapter is devoted to electro-physiology. Under this caption the author describes the physiological effects produced by the application of electricity to the different tissues of the living body, in their normal condition. In the third chapter, the therapeutical application of electricity is discussed, and the subject illustrated by clinical observations. In reference to the treatment of paralysis by electricity, the author lays down the following propositions, based upon physiological, experimental observations:

1. The galvanic stimulus is capable of disturbing the molecular equilibrium of the motor nerves and muscles, so as to produce the state in which they are physiologically active. This disturbance, if judiciously produced, does not cause any injury, but tends to re-establish or to ameliorate the lost or impaired vitality in the motor nerves and muscles.

2. The galvanic stimulus allows the necessary alternate contraction and expansion of the muscles, without which their nutrition is generally soon seriously impaired.

3. The galvanic stimulus, by producing contractions of the muscles, and thus augmenting the chemical changes in—that is, the oxidation of—the muscular tissue, causes a more abundant supply of arterial blood to it, which is evidenced by an increase of heat and bulk in those parts which have been galvanized, and which in its turn augments the nutrition of the muscle.

We are sorry that our space does not allow a more extended notice; yet nothing but a careful study of the book itself can give an adequate idea of the large amount of valuable physiological and therapeutical facts which it conveys.

Professor Farraday has stated that an oxy-hydrogen light, displayed on the Scotch highlands, was distinguished at the distance of upwards of 90 miles.

THE MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SATURDAY, JUNE 2, 1860.

INTERNATIONAL COPYRIGHT.

We have a few words to say on this subject, so far as it concerns medical literature. We are in favor of an international copyright, because we are opposed to international stealing, quite as much as to the national "petit larcenies," constantly committed by some of our American medical journalists, who seem to regard the work of others as common plunder, and with whom "scissoring" appears to be the most important part of editorial labor.

We have often heard men speak of the "cosmopolitan, the universal character of science, the spread of which should not be hindered by legal enactments;" "the more reprints, the more cultivation of science, the more knowledge." Indeed! This is the gist of the arguments advanced by those who oppose an international copyright; such is the high ground of "cosmopolitan philanthropy" which they occupy.

We know very well that science is cosmopolitan; but we are also aware that piracy is a crime. Literary labor—*brain-work*—is the hardest and highest labor that man is capable of performing. Why should he not be protected by law in enjoying the rewards of such labor? It is all very well to talk of the high aim and noble aspirations that should guide literary efforts, and which, in the consciousness of performing the great work of establishing and disseminating truth, should fill the author with an inspiration that should make him forget mere lucre, and place him above the desire for pecuniary reward. This sort of argument will do very well for a grand college-oration, when the atmosphere is laden with the fragrance of bouquets and the perfume of *extrait des milles fleurs*, but it will never do in *life*—never do for the great mass of earnest, hard-working literary men, whose paths are seldom strewn with flowers, and but too often with thorns and thistles.

Jean Paul Richter, with his quaint humor, has well remarked, that if we could but trace the causes which lead authors and poets to say

great things and true, we would find that the noisy rumbling of a hungry stomach and the expectation to pacify it, often forms the ground-basso to many a beautiful song.

We do not propose to discuss this question in the abstract; we wish to present it in its practical bearings, and state some of the benefits to American medical literature, which would result from an international copyright.

1. The present system of wholesale reprinting of foreign, and especially English works, arises not so much from their superiority, but from the fact that it is cheaper to reprint, than to publish an original work and pay the author a decent fee; and because it lies in human nature to buy the *cheaper* book, provided it be equally good or not much worse than the other. This system of reprinting, while it deprives the foreign author of the remuneration, justly belonging to him, is a direct obstacle to our own original medical literature and research.

We claim that an international copyright, while it could in no way interfere with the reprinting of really valuable books, would keep out of our book-trade a great deal of trash, secure to the brain-laborer his well-deserved earnings, and stimulate our original literature, by rendering it better paid; and by advancing original research, it would raise the standard of American science.

2. But it would also raise the *respectability* of American authorship, by doing away, at least to a great extent, with that, to us somewhat questionable title of "the American Editor," which, in the great majority of cases, we believe, means nothing more nor less than "proof-reader," bestowing cheap literary honor and repute, frequently, where it least belongs, and in other cases humbling those, who are fully competent to produce as good an original work, as the one which they edit, to the position of proof-readers and American editors, because it pays better to the publisher to reprint, than to *risk* an original work.

Considerations of honesty and equity, and the advancement of original research and scientific labor in this country, alike demand an international copyright. We are no longer dependent on foreign research and investigation. The greatest scientific discoveries of the last twenty years have been made in this country. In spite of the yearly inundations of reprints in every branch of medical science, we can to-day boast of having American authors ranking second to none. Why then continue this wholesale system of pilferage, which benefits none except the small class of republishers?

This is a question deeply concerning medical literature and journalism in our country, and which should be freely discussed by the medical press. We hope that it will be, although we feel fully convinced that our views will be strenuously opposed, principally however by those, who follow the noble profession of piracy, on a small scale, in our periodical literature. Sapienti sat!

THE SLAUGHTER OF THE INNOCENTS.

We clip the following from the Newark (N. J.) *Daily Advertiser* of May 23d, 1860:

"A few days since the court sentenced Richard B. Mershon to pay a fine of $300, for abortion, he having previously retracted his plea of not guilty, and plead guilty to the charge. The court administered the accused a severe lesson, and stated, it being the first conviction for this offence in this county, the court had made the penalty light."

We are happy to know now the exact price and value of a murdered infant, a matter about which, hitherto, we were in profound ignorance. Having always believed that criminal abortion was a State-prison offence, and, perhaps unjustly, looking upon the criminal abortionist as one of the blackest of rascals and most villanous of villains, we must now modify our opinion, guided by the higher dictum of the law of the State of New Jersey, as expounded and applied by one of her judges.

There is a peculiar, quaint humor in the little local item which we have copied, unpremeditated, of course, by the man who "does up the local" for that paper. How kindly the obnoxious adjective, "*criminal*," is omitted before the noun, "abortion," so that ignorant persons may think that R. B. Mershon had simply got in some sort of an innocent scrape,

for which he is to be pitied,—not condemned. The report could not be much different if R. B. Mershon had, in a frolicksome humor, broken Mrs. Somebody's Chinese flower-pot, and been sued for damages. Again, R. B. Mershon, having condescendingly reconsidered his previous plea of not guilty, plead guilty, in the most humerous way possible, the good-humored judge administered the accused a severe lesson, and in the same strain of judicial pleasantness, made the penalty light, considering that this was the first offence of said R. B. Mershon, and the first offence of the kind in the county.

Now, this is all mockery. This same R. B. Mershon has been for years the *notorious abortionist* of the city of Newark. He was expelled from the Newark Medical Association two years ago, or thereabout, because not only one, but several cases of wilful, premeditated, criminal abortion were charged upon him, and to which he plead guilty; but before taking his *coup de grace*, whiningly and wailingly he then promised and pledged that *never again* should he produce abortion. But it seems that R. B. Mershon's pious resolutions were like those of Renard, the fox, when in sight of the chicken-coop. He was knave enough to commit the crime again, and fool enough to be caught. But it is the *first* offence of the kind, and three hundred dollars the legal value of a murdered infant! This brings us to another consideration. Mershon, as we are informed, charged from five to ten dollars (and, of course, as much more as he could get) for his philanthropic efforts of slaughtering the innocents. If he will raise his devil's-fee to thirty dollars, he will only require ten cases a year to pay the penalty, if he has the bad luck again to be indicted. Triple and quadruple this number he must certainly be able to obtain, with the notoriety which the *Advertiser's* "mild local" has given him.

Is there no public opinion healthy and strong enough to hunt such human beasts out of decent communities; even when expounders of law are so lost to their sense of duty as to inflict a mere nominal penalty upon these hyenas of the murdering fraternity?

THE CATALOGUE NUISANCE, AND BOOK NOTICES.

Periodically, our Medical publishing houses issue their catalogues of publications, and send them over the country to the address of physicians. Ordinarily they serve very little purpose except for waste paper—rather an expensive mode, to the publishers, of supplying this commodity to the profession of the country.

But this form of the nuisance is quite innocent, compared with that in which these catalogues are bound up with books issued by the publishing houses. To take up a standard work by a distinguished author, and find that the index cannot be referred to without thumbing over almost interminable pages of stereotyped book recommendations, which have disfigured every book issued by the house for the past ten years, is, to say the least, very provoking, and an imposition on the time and patience of a class of men who can ill afford an unnecessary loss of either.

We recently had the curiosity to cut the leaves of one of these catalogues, and found that it was made up of recommendations of books, much the larger proportion of which, are in the "sere and yellow leaf" of age, and long since lost whatever of vigor they may have once possessed. The catalogue now before us contains recommendations of a certain work for instance, quoted from ten different medical journals, eight of which are defunct; some of their names even, being almost forgotten by those who are the most familiar with our periodical medical literature.

There is another consideration; an opinion of a book, to have any weight, should emanate from a distinguished source, one capable of judging of the merits, or demerits of the work noticed, and not be the mere expression of good will of one who fears to offend the publisher, lest he should not be again remembered by him in the distribution of his favors.

We are anxious to see an improvement in the character of our book notices in general, and would suggest to our publishers that it is about time to melt down the stale stereotyped recommendations with which their annual catalogues are freighted, and if it "pays" for

them to issue catalogues in this form, which we are inclined to doubt, let them offer a new course of dishes; the novelty of the thing might attract some attention.

Correspondence.

For the Medical and Surgical Reporter.

Discerning, as I do, in Dr. Wilbur's explanatory note, published in your journal of the 19th, the indicia of a manly and conciliatory spirit, I have no desire to prolong the controversy. Being unwilling that any man should take precedence of me in courtesy or magnanimity, I desire to be understood as leaving the field, pari passu, with Dr. Wilbur. Any wounds of feeling which I may have received in the contest, have healed by first intention; and if Dr. Wilbur can say as much, I am content.

P. GREGG.

Rock Island, Ill., May 23, 1860.

News and Miscellany.

Medical Society of the State of Pennsylvania.—Since our issue of the 19th ultimo, we have been furnished with the following additional particulars of the approaching (twelfth) Annual Session of this society. In pursuance of its final adjournment last year, the society will convene, in this city, on Wednesday, the 13th instant, at 11 o'clock, A. M., *precisely*, when the President will call to order. The Sessions will be held at the "*Assembly Buildings*," S. W. corner of Tenth and Chesthut streets—*entrance on Tenth street*, and will be opened with prayer by a distinguished clergyman of this city, followed by an address of welcome from the chairman of the committee of arrangement and reception. Subsequently it was proposed to meet at ten o'clock in the mornings and four o'clock in the afternoons. This arrangement will afford the delegates from a distance an opportunity to visit, in the intervals, our various medical, literary, scientific and charitable institutions, to which they will have free access on the presentation of their cards of membership.

On Wednesday and Thursday evenings, we understand, private receptions will be given by members of the profession; and on Thursday afternoon, it is proposed, to visit, by special invitation, the *new* Pennsylvania Hospital for the Insane, located in West Philadelphia, and under the superintendence of Dr. Kirkbride.

In the construction of this Hospital, all the modern improvements that science could suggest in ventilation, warming, and other conveniences have received attention, and we venture to affirm, that there is no other building in this country, which is so complete in all the details of its arrangements, or better adapted for the successful treatment of that unfortunate class of patients for whom it is designed, and who may become the recipients of its bounty. It is, therefore, well worthy the careful inspection of the members of the society.

Several of the railroad companies, whose roads connect with Philadelphia, we are gratified to learn, with their characteristic liberality, generously consented to pass the delegates over their roads, *both ways*, at *reduced fares*, upon the presentation of their credentials at the various points of embarkation. It is particularly requested that delegates, who may see this statement, will immediately communicate the information to their colleagues.

The committee of arrangement will be in attendance at the "Assembly Buildings" on Tuesday, preceding the Annual Meeting, from 4 to 6 o'clock, P. M., and on Wednesday morning after 9 o'clock, when and where the delegates are requested to present their credentials, register their names and receive their cards of membership.

The Thirteenth Annual Meeting of the American Medical Association takes place next Tuesday, May 5th, and will remain in session four days. We give below the arrangements with the various railroads for the conveyance of delegates. We shall have a reporter at New Haven and expect to lay before our readers a full account of the proceedings at an early date.

The National Medical Convention.—The Detroit and Milwaukee, Michigan Central and Great Western Railroads, will carry delegates from Milwaukee, Chicago and Detroit, to Suspension Bridge and return, at one fare, upon presenting certificates that they are such delegates at the time of purchaseing tickets. Tickets, when issued, will be good for thirty days. The Pittsburgh, Fort Wayne and Chicago Railroad, will pass returning delegates free over such portion of the road as they may have paid full fare over in coming to the Convention, on the presentation to its conductors of the certificate of the proper officer of the

Convention that the bearer was a delegate in attendance, and that he paid full fare over the road in coming to the Convention. The Pennsylvania Railroad will issue "Excursion tickets," good for the "round trip," over that road. The Philadelphia, Wilmington and Baltimore Railroad will issue "round trip" tickets to delegates at $4.00, on presenting proper certificates at their ticket office. The Charleston and New York line of Steamships (Spofford, Tileston & Co's line) will bring and return delegates at a reduction nearly equal to half fare. It is hoped and believed that arrangements for a reduction of fare between Philadelphia and New York will be effected prior to the sitting of the Convention. Information of such arrangement, if effected, may be obtained from the physicians of Philadelphia by delegates and others passing through that city. The New York and New Haven Railroad will issue "round trip" tickets at one fare to those who have a certificate to show that they are physicians, and to their families. The steamboats "Elm City" and "Traveller" will return to New York free of charge delegates coming upon them from that city. The "Elm City" leaves Peck Slip for New Haven, daily, at 3 P. M., and the "Traveller" at 11 P. M. The Western, and New Haven, Hartford and Springfield Railroads, forming a route between Albany and New Haven, will return delegates free who may have come over their roads, upon presenting certificates of their attendance. The same roads, in connection with the Boston and Worcester Railroad, forming the "Inland Express Route," as also the "Shore Line Route," composed of the Boston and Providence, Providence and Stonington, and New Haven, New London and Stonington Roads, will issue "round trip" tickets from Boston at one fare. The Kennebec and Portland Railroad, the roads between Portland and Boston, the Worcester and Nashua, and Connecticut River Railroads, will carry returning delegates without charge who may have paid full fare over their roads in coming. It is respectfully suggested to delegates and permanent members, that they should make their official character known when purchasing tickets upon *any* of the roads herein named.

A Medical View of the Prize Ring.—The following is from an editorial in the London *Lancet*:

The general merits of the Prize-Ring we cannot discuss. It has its special organs and advocates. But a medical journal may, with propriety and usefulness, point out some of the hygienic and moral bearings of our national, if not "noble," art of self-defence. Admitting the theoretical truth, and not forgetting the inaptitude of the doctrines of the Peace Society, we may regret that men should quarrel, box, stab, cut, maim, shoot, or wrestle with one another, and, without inconsistency, give our preference, since men will quarrel and fight, to that mode of fighting which entails the minimum of evil and supplies the maximum of good. Regarded in this light, as a vent for the combative propensity of mankind, it cannot be denied that the English prize-ring is entitled to the post of honor. It is certain that we all think so, although it is conventionally held to be very shocking to say as much. For some weeks past TOM SAYERS has been the most popular man in England, and JACK HEENAN the most interesting, if not the most illustrious, stranger. The fact is notorious that the encounter between these two men has attracted more universal and more eager attention than the Reform Bill, the Budget, or any one of the pressing political questions of foreign and domestic policy.

Of course we are all scandalized at the spectacle of two athletes dealing out to each other terrific blows, whose heavy "thuds" on the naked body are "heard over the whole field," in the presence of a crowd of backers, patrons, and partisans. But, this feeling having subsided, it is surely not unimportant to seek to explain the astonishing circumstance, that two men should, for upwards of two long hours, endure such fearful punishment, and yet walk about the next day as if nothing had happened. The great probability is, that if two ordinary men, unskilled, untrained, and unfettered by rules of fighting, meet in conflict, each bent upon placing his antagonist *hors de combat*, long before the expiration of one hour, the combatants will give in from exhaustation, or one will retire so injured, that he will be a permanent sufferer, or will have a tedious convalescence in prospect. The explanation lies in these four things: First, the training or preparation; secondly, the courage brought to the encounter; thirdly, the skill possessed by the antagonists; fourthly, the subjection of the combatants to certain laws during the contest. Although, when estimating the result, it is difficult to assign the exact relative value of these four conditions in producing it, the preliminary training must be regarded with the greatest physiological and hygienic interest. By what means can a man be brought into

such a wonderful state of muscular development, of lung-force, and of power of endurance, as was exhibited in the recent conflict? What is the method pursued in order to bring out this marvel of physical vigour? The answer may have its uses beyond the rearing of pugilists. The professors of the art accord, we believe, an enlightened respect to the precepts of medicine. We are, however, unable to describe their practice from personal experience. It is understood that the plan pursued is varied, according to the condition and requirements of the individual in training. But the general system is somewhat as follows: Diet and exercise are most scrupulously regulated. The athlete, who has, by indulgence or inaction, become too fat and short-winded, is thickly clad in woollen garments, and made to run long distances, frequently up hill, until he perspires freely. He is then carefully rubbed with coarse towels. He also takes frequent baths, so that the skin is thoroughly cleansed, and made to perform its emunctory and other functions with the greatest perfection. He is submitted to a variety of exercise, such as sparring, the use of dumb-bells, and other means calculated to increase muscular development, and expand the chest. His principal food consists of beef-steaks and mutton-chops. The steaks are well beaten to render the muscular fibre more digestible; dressed in a frying pan, diligently polished to exclude the chance of dirt, or other contamination; and cut into very thin morsels to facilitate mastication, and that minute subdivisions which is conducive to perfect digestion. He is not restricted from beer, but is compelled to be moderate. Under a few weeks' subjection to this system, the puffy fellow, who could not run twenty yards without panting, nor receive a moderate blow without exhibiting bruises and extravasations, is disincumbered of all superfluous tissue, and brought into a condition capable of the greatest physical exertion and endurance. The regenerated athlete comes into the ring, exulting in muscular power and activity. Suppleness and force are revealed in every movement. You have before you the ideal of the human animal personified. Nor is the result entirely one of animal excellence. The physical qualities of man can hardly be wrought to a high pitch without also evoking some of the moral good that is in him. The training itself implies mental as well as physical discipline. For a long time the pugilist, having his aim in view, possibly a bad aim, has exercised the most resolute self-denial. When he encounters his antagonist, that self-denial gives place to perfect self-control. We fear we must not divert the word chivalry from its ordinary acceptation to conflicts of this kind; but there is surely something akin to it in that unswerving and not ungenerous observance of the rules of "fair play," and that admirable command of temper under the most severe punishment, which are amongst the characteristics of the professional pugilist. Now when we remember that men and boys will quarrel and fight, it is impossible not to recognise the utility of some standard that shall serve to control and moderate the brutal passions of combatants. This we undoubtedly see. The laws of the ring exert their sway over the whole population, and unquestionably often prevent acts of cowardice and cruelty.

But quarreling and fighting are not the exclusive vices of civil life. They enter for a large part into the policy of nations. We raise twenty millions of taxes for the express purpose of maintaining tens of thousands of fighting men in the best condition, and armed with the best appliances for destroying their fellow-men. So long as nations shall owe their independence to their military virtue, so long must it be of importance not to suffer the pride of personal prowess, or the spirit of chivalry, to decay amongst the mass of the population. This mass supplies our armies. Can a soldier be made like an inanimate article of manufacture? Is it a matter of indifference whether the raw material be a man nursed in effeminacy, or one who has felt the influence of our national mode of combat? Is there not some relation between the vulgar combative peculiarities of the Saxon race and the upholding of our rights and *prestige* amongst the nations? It is surely a characteristic not altogether ignoble, or deserving of unqualified condemnation, that the Englishman should have cultivated a mode of fighting without weapons of any kind, and brought it to such a perfection, that his bare fist is an object of terror, and often a sufficient defence against armed violence, abroad.

We are now training a volunteer force for the security of the country. Its effectiveness must greatly depend upon the personal physical accomplishments of the individuals composing it. As a gymnastic exercise, "glove-practice" has many advantages. There is, perhaps, nothing that gives greater freedom, dexterity, and power to the limbs. The rifleman may therefore, learn a useful lesson from the pugilist, and, with advantage, imitate his hygienic training.

☞ *The Association of Superintendents of Hospitals for the Insane* has been in session in this city during this week. There were thirty or forty members present, and the meetings have been very pleasant and profitable. A full report of the proceedings will appear in our next.

Army and Navy Intelligence. The bill now before Congress to increase the pay of officers of the Navy, and which is likely to pass that body, proposes the following changes in the pay of the medical officers.

Grade.	Present Pay.			Increased Pay.		
	On leave, or waiting orders.	Navy Yards or other duty	Sea service.	On leave, or waiting orders.	Navy Yards or other duty	Sea service.
Surgeons, 1st year	1000	1250	1333	1250	1500	1668
" 2d year	1200	1500	1699	1500	1875	2000
" 3d year	1400	1750	1866	1750	2037	2332
" 4th year	1600	2000	2153	2000	2500	2533
" 20 years and upwards	1800	2250	2400	2250	2712	3000
Pas'd Ass't Surgeons	850	1150	1200	1012	1462	1500
Assistant Surgeons	650	950	950	812	1162	1162

The New York Ophthalmic Infirmary, under the charge of Drs. Stephenson and Garrish, has been removed from No. 6 Stuyvesant street, to No. 63 Third avenue, near Eleventh street.

The Rate of Mortality of the City of London.—The population of London is reckoned at 2,774,000; and it is still increasing at the rate of 1000 weekly—30,000 by births, and 23,000 by immigration. The females exceed the males by about 175,000, because it has more female immigrants, and because man's mortality, by reason of his occupations, is greater than the woman's. Of 1,394,900 inhabitants of the age of twenty and upwards, in the last census about 750,000 were born beyond the bounds of London. It is a vast stage upon which the people of these isles play their part, and then retire to country life, to foreign lands, or to the life beyond the grave. 92,500 children were registered as born during 1859, *i. e.* 1780 weekly, or 254 per diem—the boys exceeding the girls by 1822: 61,600 died, death taking them off at the rate of 1185 per week, or 7 per hour. The mortality was at the rate of 22 in 1000, while it was 24 in 1000 during the previous eighteen years.

To show the marked difference between the death rate in the seventeenth and nineteenth centuries, the Registrar-General has given us some very interesting details; and it appears that the comparison may be relied on as tolerably correct. In the 20 years, 1660—79, the death-rate was 7000 in 100,000; in 1859, it was 2229. Small-pox took off 357 in the first period, and 42 in the second; fever, 749 and 59 in the two periods. In those days, 86 died in childbed, now 17 die in the 100,000. Now 8 die of dysentery, then 763 died. Syphilis was twice as fatal then. Scurvy also took off its 142 instead of 2 as now. Respiratory diseases were very fatal; 1079 then, against 611 now. Convulsions and teething carried off 1175; and now (sadly still too many) carry off 136. Besides this, in those days were visitations of the plague—in 1665, for instance, nearly one-third of the population perished by plague.

Some few exceptions are worthy of note, however, in this category. Appoplexy, paralysis, affections of the brain, and suicide are more than double as fatal now as they were then. Stone, and diseases of the urinary organs, are as fatal now as they was then.—*Med. Times and Gazette.*

☞ *To Subscribers.*—Mr. V. F. Harrison of No. 133 South Tenth street, in this city, was, at one time authorized to receive subscriptions for the REPORTER. We wish our readers to understand that he is no longer our agent. We shall hold ourselves responsible to those who have made payments to him up to this time, provided they inform us the amount of payment, when paid, and when their subscriptions commenced. We are compelled to pursue this course as we cannot obtain the information from Mr. Harrison.

Answers to Correspondents.

COMMUNICATIONS RECEIVED.—*Alabama*, Dr. A. H. Smith, [with encl.,] Dr. John H. Williamson, [with encl.]—*Connecticut*, Dr. Leonard J. Sanford, [with encl.,] Dr. S. G. Hubbard, Dr. John S. Lewis, [with encl.]—*Georgia*, Dr. L. J. Robert—*Illinois*, Dr. Thomas D. Fitch, [with encl.,] Dr. P. Gregg—*Indiana*, Dr. T. B. Bicknell—*Iowa*, Dr. J. J. Morgan, [with encl.,] Dr. G. Beeder—*Maine*, Dr. Jos. W. Ellis, [with encl.,] Dr. A. F. Page—*New Jersey*, Dr. H. Field, [with encl.,] Dr. A. A. Lutkins, [with encl.,] Dr. S. C. Marsh, [with encl.,] Dr. C. Eyrich—*New York*, Dr. R. Ormiston, Dr. R. B. Bontecau, [with encl.,] Dr. N. D. Ferguson, Dr. Robert Watts, [with encl.,] Dr. Louis Bauer, [with encl.]—*Ohio*, Dr. Schallern, [with encl.,] Dr. P. H. Clark, [with encl.,] Dr. Blymyer, [with encl.,] Dr. J. R. Black—*Pennsylvania*, Dr. John H. Grove, [with encl.,] Dr. D. L. Beaver, [with encl.,] Dr. G. W. C. James, [with encl.,] Dr. W. M. Knox, [with encl.,] Dr. James B. Herron, [with encl.,] Drs. T. & S. Dickson, [with encl.,] Dr. Daniel Cornman, [with encl.,] Dr. D. W. Hoover, [with encl.,] Dr. S. C. McCormick, Dr. S. R. Treichler, [with encl.,] Dr. Jacob